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PREVENTING ELDER FALLS

HEARING

BEFORE THE

SUBCOMMITTEE ON AGING

OF THE

COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS
UNITED STATES SENATE

ONE HUNDRED SEVENTH CONGRESS

SECOND SESSION

ON

EXAMINING THE IMPACT OF MENTALLY ILL OFFENDERS ON OUR JUSTICE SYSTEM, FOCUSING ON THE COUNCIL OF STATE GOVERNMENTS' "CRIMINAL JUSTICE/MENTAL HEALTH CONSENSUS PROJECT" REPORT, WHICH PROVIDES A GUIDEBOOK AND RECOMMENDATIONS FOR THE CRIMINAL JUSTICE SYSTEM TO IMPROVE THEIR RESPONSE TO PEOPLE WITH MENTAL ILLNESS

JUNE 11, 2002

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C O N T E N T S

STATEMENTS

TUESDAY, JUNE 11, 2002

ADDITIONAL MATERIAL

PREVENTING ELDER FALLS

TUESDAY, JUNE 11, 2002

U.S. SENATE,
SUBCOMMITTEE ON AGING,
OF THE COMMITTEE ON HEALTH, EDUCATION, LABOR, AND PENSIONS,
Washington, DC.

The meeting of the subcommittee convened at 2 p.m., in room SD–430, Dirksen Senate Office Building, Senator Mikulski (chairman of the subcommittee) presiding.

Present: Senators Mikulski and Hutchinson.

OPENING STATEMENT OF SENATOR MIKULSKI

Senator MIKULSKI. The subcommittee on Aging of the Health, Education, Labor, and Pensions Committee will now come to order.

Today the subcommittee is examining the issue of the number of falls facing the elderly within the United States of America. This is an enormously serious issue, and we want to thank the National Safety Council for bringing it to the attention of my colleague Senator Tim Hutchinson and myself, and I want to acknowledge that Senator Hutchinson has taken the leadership role in directing the legislation in response to this issue.

We intend to work on a bipartisan basis to deal with this, and we are deeply troubled to find that falls are the leading cause of injury deaths among persons aged 65 and older; that over 340,000 adults suffer fall-related hip fractures each year, many of them women, many of the hip fractures related to both the fall situation and osteoporosis, causing terrible pain to the individual, great stress on the family, at a cost of $18,000 to $20,000 to the health care system.

Falls do not discriminate. One of our most prominent Washington women, Kay Graham, the chief executive of The Washington Post, a Pulitzer Prize winner, a grand dame of American politics and an important figure in our social history, died because of a fall.

Many of you today probably have friends or families who have had the same experience.

Falls can be prevented by taking important steps which we look forward to hearing about today. We want to be able to address the solution in terms of a legislative public awareness campaign, and again, we look forward to hearing your ideas and your recommendations.

One out of every three adults over the age of 65 falls every year. Falls are the leading cause of doctor visits, hospital admissions, and emergency room visits. Older adults are most likely to have

this happen to them and most likely to have it happen in their homes.

I am going to ask unanimous consent that my full statement go into the record, because I know that Senator Hutchinson and I believe that the best ideas and the best information comes from the people.

Without objection, my full statement will go into the record.

[The prepared statement of Senator Mikulski follows:]

PREPARED STATEMENT OF SENATOR MIKULSKI

Today the Subcommittee on Aging is examining the troubling problem of elderly falls in this country. The facts are staggering. Falls are the leading cause of injury deaths among persons aged 65 and older. About 340,000 adults suffer fall-related hip fractures each year. Women sustain 75-80% of all hip fractures. 90% of hip fractures are associated with osteoporosis. The cost of a single hip fracture is estimated at $16,300 to $18,700 during the first year after the injury.

Falls don't discriminate. Kay Graham, a nationally known, affluent person was the victim of a fall. Many of you here today probably have friends or family members who have fallen.

Yet falls can be prevented by taking steps like, home modification, exercise reviewing medications to reduce side effects that lead to falls.

Today the Subcommittee will examine the impact of falls and what needs to be done to prevent them.

To help seniors live longer, healthier lives and to reduce health care costs.

What is the problem?

One out of every three adults over 65 falls every year. Falls are a leading cause of doctor visits, hospital admissions, and ER visits. Older adults are most likely to fall right in their own homes. When falls are not fatal, they can have a devastating impact on a person's physical, emotional, and mental health.

For example, an older woman loses her footing on her front porch steps, falls, and suffer a hip fracture. She would likely spend about two weeks in the hospital and may discover that she has osteoporosis. There is a 50% chance that she could not return home or live independently after her injuries. She would face large medical bills.

What is the solution?

More work is needed to prevent falls in both residential and institutional settings. Falls can be prevented. Many people are not aware of steps they can take to prevent elder falls. That's why I joined Senator Hutchinson to introduce the Elder Fall Prevention Act. This important legislation provides a framework to reduce and prevent elder falls through public education campaigns and for seniors, their families, and health care providers. Research to develop better ways to prevent falls, improve the treatment and rehabilitation of elder falls victims, evaluate the effectiveness of community programs, to prevent elder falls in assisted living facilities and nursing homes. Demonstration programs on ways to prevent elder falls from home modification to targeting those at high risk for second falls.

The bill also requires an evaluation of the effect of falls on Medicare and Medicaid. This study would look at potentially reducing costs by expanding coverage to include fall-related services.

Closing. Welcome all of our witnesses here today and acknowledge the National Safety Council who brought the serious issue of elder falls to our attention.

I want to especially welcome Peter Merles from the South East Senior Housing Initiative in Baltimore (part of SECO). The Centers for Disease Control and Prevention (CDC) has also provided written testimony for the record about what steps CDC is taking to prevent elder falls.

I look forward to the testimony of all our witnesses on this very important issue.

Senator MIKULSKI. I am going to turn to my colleague, who has really been a leader on this issue and a strong advocate of having a public response to this crisis.

OPENING STATEMENT OF SENATOR HUTCHINSON

Senator HUTCHINSON. Thank you, Senator Mikulski.

Thank you for holding the hearing today, and thank you for your leadership on an issue that both of us care very deeply about.

In my home State of Arkansas, falls are the second leading cause of unintentional injury deaths among seniors. Nearly 100 older Arkansans die each year from fall-related injuries. Tragically, these are deaths that could be prevented by the kinds of things that we want to do and the kinds of things that the Government can do through education and prevention efforts.

I am sure that everyone in this room has a parent or a grandparent—looking at the age of those in our audience today, mostly grandparents—but someone who has suffered from a fall-related injury. Nationwide, falls are the top cause of unintentional injury deaths among older Americans, well above the number of deaths caused by motor vehicle accidents, which receive a great deal of attention.

One of every three older Americans falls every year, and 60 percent of those falls occur at home. Ninety-five percent of hip fractures occur as the result of a fall, and the incidence of fall-related hip fractures is on the rise. In 1999, 330,000 seniors were admitted to the hospital due to a hip fracture, compared to 230,000 in 1988—an increase of 100,000. Even more startling is that 25 percent of elderly fall victims who sustain a hip fracture die within 1 year.

Only half of seniors are able to live independently after sustaining injuries from a fall. So it is abundantly clear that falls have a serious impact on the quality of life for seniors. Additionally, falls take a tremendous toll on our Medicare system. Medicare costs attributable to fall-related injuries were $2.9 billion in 1991. These costs are increasing and are expected to continue to increase exponentially over the next several decades.

Education and prevention are steps we must take to address this epidemic. We are going to hear today from the National Safety Council and Mr. Jackson, who has taken a lead in elder falls research and prevention through community-based programs. We are also fortunate to have the benefit of written testimony from the

Centers for Disease Control, which has established a widely disseminated Fall Prevention Tool Kit. There are many other efforts underway at the local level which we are going to hear about.

Additionally, I am pleased to have introduced legislation along with Senator Mikulski which aims to improve Federal and community-based efforts to prevent elder falls through public education, research and demonstration programs.

So I look forward to hearing from our witnesses, and I do, Madam Chairman, want to extend a special welcome to Mary Watson, who flew here from Arkansas to be with us today, and that is a lengthy flight—no easy way, no direct flight. So we are very glad to have Mary here today as well, and I look forward to the opportunity to introduce Ms. Watson at the appropriate time.

Senator MIKULSKI. Senator, first of all, thank you for your excellent statement, and of course, we welcome Ms. Watson.

What I would like to do is go through the introductions and have you tell us more about Ms. Watson, and then we will go to the testimony.

The subcommittee wishes to welcome Ms. Lilie Maria Struchen, who is originally from Iowa. She has been a resident of Washington, DC for over 7 years, and over the past few years, she has actually fallen three times. She is here to tell us what that meant and how it could have been prevented. We expect that she is going to be an outstanding witness because she was a teacher in Iowa for 23 years, and we are looking for her to educate the committee. She is a graduate of Iowa State Teachers' College, as well as Buena Vista University in Storm Lake, IA. We welcome her.

We also have with us Mr. Bobby Jackson, who is vice president of national programs for the National Safety Council, which really brought this to our attention. It is a nonprofit public service organization working with business, government at all levels, and community organizations to reduce unintentional injuries in the workplace, highways, and in our homes and communities.

Mr. Jackson was previously with the National Mining Association; he was an infantry officer in the army and was in Vietnam. He is a graduate of Montana State University.

Senator Hutchinson, do you want to tell us about Ms. Watson.

Senator HUTCHINSON. I would love to, Madam Chairman.

I am pleased to introduce Mary Watson, who serves as an advanced practice nurse for the Central Arkansas Veterans Health Care System Veterans Hospital in Little Rock, and is the coordinator of the Fall Prevention Program for the VA in Little Rock and North Little Rock.

She is from Bald Knob, Arkansas, and she received her bachelor's and master's degrees from the University of Central Arkansas in Conway, AR. She has worked as a health care provider for both veterans in substance abuse programs as well as those living in nursing homes.

Ms. Watson currently serves as chair of both the VA Nurses and Advanced Practice Committee and the VA Nursing Research Council. She is a member of the American Nurses Association and the National Organization of VA Nurses.

Ms. Watson has distinguished herself in Arkansas and the VA Health Care System as an expert in fall prevention and research.

To most people in Arkansas, she is simply known as "the falls nurse."

Mary, we welcome you this afternoon and look forward to your testimony. You have traveled a great distance, and we appreciate you being here.

Senator MIKULSKI. And Ms. Watson, a special welcome, because I chair the subcommittee that funds veterans' health care, so I am going to listen with even extra attention to see if there are not lessons learned, Senator Hutchinson, that we might even be able to find appropriations for this year, just to move this along, again because of the admissions issues and the need for very expensive orthopedic intervention as well as rehabilitation.

Senator HUTCHINSON. Hear, hear.

Senator MIKULSKI. I would like to share with the committee and welcome Mr. Peter Merles, who is the director of the South East Senior Housing Initiative, which is part of a group called the South East Community Organization, in my own home town and in my own neighborhood. I actually helped start the umbrella organization which the Housing Initiative is part of. But in addition to advocacy for neighborhoods, it also went into programs that would really help to empower people—home ownership, among others. We have one of those naturally-occurring communities where a lot of people are aging in place in those wonderful rowhouses in Baltimore. When they sold for $45,000 they were "rowhouses"; now that they are selling for $90,000, they are "townhouses." I am sure you would appreciate that.

Senator HUTCHINSON. I will say that we do not have a lot of them in Arkansas.

Senator MIKULSKI. Yes; you have catfish, and we have rockfish.

Mr. Merles is a social worker with a degree in group work and community organization from Columbia. He has also had great experience working as director of administration at the Jewish Community Centers. He is a veteran of the United States Army and has been an officer of the Maryland Senior Centers and is currently president of the Senior Center Directors' Council, which means they all get together and share information and see how they can help people.

So we welcome you, Mr. Merles.

What I would like to do is start with Ms. Struchen, because the people who are the most affected should be the ones who kick this off. Then, if we could go to the broad policy issues and Mr. Jackson, and then, Ms. Watson and Mr. Merles for your very sound, grassroots, hands-on experience to give us a lot of the practicality and hopefully some of the really concrete solutions that are specific and affordable.

So, Ms. Struchen, would you please lead off, and the committee looks forward to hearing your testimony.

STATEMENTS OF LILIE MARIA STRUCHEN, WASHINGTON, DC; BOBBY JACKSON, VICE PRESIDENT FOR NATIONAL PROGRAMS, NATIONAL SAFETY COUNCIL, WASHINGTON, DC; MARY E. WATSON, FALLS CLINICAL NURSE SPECIALIST, CENTRAL ARKANSAS VETERANS HEALTH CARE SYSTEM, LITTLE ROCK, AR; AND PETER MERLES, DIRECTOR, SOUTH EAST SENIOR HOUSING INITIATIVE, BALTIMORE, MD

Ms. STRUCHEN. Thank you very much. I thank both of you. My voice does not carry. Can you hear me now?

Senator MIKULSKI. Yes, ma'am.

Ms. STRUCHEN. Well, in the first place, I am happy to be here, and I think it is wonderful that you are having this meeting and discussing something that is very important to us as we get older—and everyone will get older, you know.

As the paper says, I am 91 years old, and I live at Friendship Terrace, a retirement community here in Washington, DC. I just moved there recently, about 3 years ago, and I am very happy to be there, because they have conveniences for us and help us in a lot of ways. They have a library and 24-hour desk security, a shuttle bus for us if we want to go shopping or get groceries and things like that. So I am happy to be there.

I was on one of these shopping tours when I fell. I happened to be on Wisconsin Avenue and, leaving the CVS drugstore, I crossed to get to the Giant store. And of course, I do not cross streets until I see the second green light, because you cannot start in the middle of the green light and get across. It is hard enough after the second green light. And I stumbled on the curb and fell flat on my face right by the light pole. And of course, you know, you have to lie there for a while to get your bearings, and I did not really get hurt very much, but I did knock my teeth in, and I lost the lens out of my glasses.

Finally—people passed me, and I think they thought they had better not pick me up—but a lady stopped her car, got out and picked me up and took me home, and then she went and got some bandages for the few little hurts that I did have. So I was very fortunate.

But you know, it was about 2 or 3 weeks later that I did the very same thing. There just was not time to get across that street and not hurry; you had to hurry to get there. Even now sometimes, I have to hurry to get across with my walker. I think I did that when I did not have a walker yet; now I have one, and it helps. But even then, sometimes someone has helped me get across in time.

So that was my first experience. Then, I fell in the bathroom. That is such a very small, narrow space, and it happened so fast. It was a tile floor, and there were a few drops of water on it. I was wearing my leather-soled shoes, and I just went like that—so fast. I knocked this side, and I knocked that side, finally knocking my head before I went down completely on the floor. That disturbed me, of course, because no one would have heard me call to anyone, because the doors were closed except for the bathroom door; I could not have fallen down if it had been closed.

The panic button was on the other wall, and I could not reach that. So I wondered what I should do, and finally, I thought, well, the only way I can get up is I have to turn on my knees to get on

my knees and pull myself up. Well, you know, I do not get on my knees—older people do not—but that is what happened. I turned on my knees and pulled myself up. I had a cut on my arm and a big bruise, but that was all that I had. I was so glad I had not broken any bones; a lot of people do, you know. I have had friends who did break bones and had to go to the hospital, and some had to go to nursing homes and never returned to our building.

I was just very lucky, I think, because I always dreaded having a hip broken or something like that, or even to have knee surgery, because some of them are not very successful, I hear. So I was just lucky.

Thank you.

Senator MIKULSKI. Well, thank you very much, and it says several things—one, how frightening the experience is, and although the injuries were not ones that required surgical intervention or a cast, it was pretty traumatic, the glasses breaking and so on. It could have caused all kinds of very serious damage, but also left you with a feeling of insecurity, I know. And wasn't it wonderful the good Samaritan who came to your rescue. Well, you are a brave lady, Ms. Struchen, and we thank you for your testimony.

[The prepared statement of Ms. Struchen may be found in additional material.]

Senator MIKULSKI. Mr. Jackson, do you want to tell us about what the National Safety Council thinks about this, and why they are willing to come all the way to the Congress of the United States with this issue?

Mr. JACKSON. Yes, ma'am, if I could address a few of the broader issues.

To be a bit redundant, my name is Bobby Jackson, and I am vice president of national programs for the National Safety Council.

Madam Chairman, the Council is certainly appreciative of the opportunity to testify here and for you holding this hearing on S. 1922, the Elder Fall Prevention Act.

With your permission, Madam Chairman, I will submit my written statement for the record and summarize briefly.

Senator MIKULSKI. Great.

Mr. JACKSON. And again to be redundant, the National Safety Council is a congressionally-chartered nonprofit, nongovernmental public service organization. We were founded in 1913, and the Council is the Nation's leading safety and health advocate, and we are dedicated to protecting life and promoting health.

Falls among our Nation's seniors is a serious problem. In fact, 2 years ago, the National Safety Council published its "Safety Agenda for the Nation" which identified falls among the elderly as a leading concern.

Almost everyone to whom we have spoken has a story to tell about a friend or a neighbor or a relative who has had experience with a fall and how it has dramatically impacted their lives. I am sure that everyone in this room, as Senator Hutchinson mentioned earlier, has a personal experience that they could describe not unlike Ms. Struchen's moving statement of a few moments ago.

In 1999, the CDC reported that over 10,000 senior citizens died from fall-related injuries. One in four seniors who fall and sustain a fractured hip die within 1 year of sustaining that injury. More

alarmingly, hip fractures are expected to exceed 500,000 by the year 2040.

S. 1922 has four major provisions to address the prevention of falls to the elderly. Those are: a comprehensive national education campaign; demonstration projects; research programs; and an HHS review of Medicare and Medicaid reimbursement policies.

Through our charter at the National Safety Council, we have been charged by the United States Congress to "arouse the Nation in injury and accident prevention." The Council has led many successful national campaigns such as the seatbelt and airbag campaigns. The Council has numerous outreach vehicles including our network of about 49 State and local chapters, an extensive volunteer network, and the National Safety Council founded the National Alliance to Prevent Falls as We Age. This Alliance is a coalition of over 20 organizations that are dedicated to reducing elder falls.

We intend to apply our outreach expertise to communicate with senior citizens, with their families, with institutional caregivers and others on fall prevention intervention.

Today, many Americans do not even know that they can make simple changes in their environment such as in lighting or home design, or they do not know that pre- and postfall counseling and vision correction have actually demonstrated a reduction in falls.

While we have a well-established base of information for an initial education campaign, we certainly need to learn more. To that end, the National Safety Council will oversee some of the demonstration and research projects that are fostered in this legislation.

S. 1922 will provide resources to the community-based organizations like the South East Senior Housing Initiative, which we will hear from in a few moments, to implement local programs. In addition, S. 1922 has a CDC research component to improve identification of high-risk elders and data collection.

Understand that S. 1922 is not just altruistic legislation for a human problem, but it addresses major economic implications. CDC estimates that the direct costs to Medicare and Medicaid for fall-related care will exceed $32 billion in the year 2020.

When he signed on as a cosponsor to this legislation, Senator Max Baucus issued a statement that said, and I quote: "As chairman of the Senate Finance Committee, senior health issues are one of my top priorities. I am committed to protecting and improving programs to better serve seniors with crippling illnesses like cancer and heart disease." But the Senator went on to say: "But I believe Congress must also address other health hazards that can be just as devastating. One of these hazards is falls to seniors."

S. 1922 will charge HHS to review the reimbursement policies of Medicare and Medicaid relating to positive fall prevention interventions. Clearly, a small resource investment now will foster huge savings in the future.

As I said earlier and others on the panel will testify to, and certainly Ms. Struchen's statement, falls to seniors are a serious problem. Our friends, our neighbors, our relatives, and quite possibly each one of us will be benefited by this legislation.

The National Safety Council certainly wants to commend both you, Madam Chairman, and Senator Hutchinson for your leadership in this positive and worthwhile initiative. We certainly urge other Members of Congress to embrace these worthwhile efforts.

We look forward to working with the Congress as we continue to address the important matter of falls among the elderly.

Thank you, Senator.

Senator MIKULSKI. That was excellent.

[The prepared statement of Mr. Jackson may be found in additional material.]

Senator MIKULSKI. Ms. Watson, I am going to turn to you, but before I do, we have the testimony of Dr. David Fleming, who is acting director of CDC, and at this point in the record, I am going to ask unanimous consent that his testimony be included in the record as part of the framework from both the national advocacy group and the national Federal agency involved with this issue.

[The prepared statement of Dr. David Fleming may be found in additional material.]

Senator MIKULSKI. Ms. Watson, welcome.

Ms. WATSON. Madam Chairwoman and Senator Hutchinson, I am really honored to be here today.

We have just heard the statistics on the incidence of falls and fall-related injuries and the cost to care. But the amount of pain and suffering from these injuries, like Ms. Struchen's, cannot be estimated.

I have given you my written testimony for the record, but I would like to summarize the rest of my remarks.

As you mentioned about Katherine Graham's death, America also knows that President Reagan's physical activities declined after his fall and hip fracture. And something of interest to me personally, which I discovered when doing family genealogy, was that my great-grandfather, a Civil War veteran from Pennsylvania, at the age of 75 fell on the ice and fractured his hip. His death certificate said that he died as the result of a fall.

Now, that was in 1918, and here we are in the year 2002, and we still have significant numbers of older Americans dying within the first 6 to 12 months of falls with fractures.

Over time, as the chairwoman mentioned, falls will affect every American family. A lot of good people are working on this issue, and this is what I know is being done. The VA has made patient safety and fall prevention a top priority. My role is unique in the VA system. As an advanced practice nurse, I coordinate our fall prevention program and see inpatients on consult and to assist staff with interventions.

Last fiscal year, we reduced our inpatient major injuries by 50 percent. Our Little Rock VA and I have been supported in our efforts by staff at other VAs. Audrey Nelson and Pat Quigley's work at the VA Patient Safety Center of Inquiry at Tampa is extensive in this area. They have set up fall prevention programs and clinics; they are addressing the issue of fear of falling and have hosted three excellent evidence-based fall conferences.

I have 5 minutes in which to talk to you about falls. This conference lasts 3 days, with outstanding researchers like Rein Tideiksaar and Janice Morse.

Our VA has also benefited from the work of the VA Patient Safety Center of Inquiry at White River Junction, VT. We were involved with a Falls Collaborative Project chaired by Peter Mills that included 37 VAs and other institutions. Real people struggled for 7 months to develop and implement a safer environment for patients while reducing restraint usage. The results were a tremendous 79 percent reduction in major injuries.

The VHA National Center for Patient Safety, under the direction of Jim Bagian, has published a guide entitled "Fall Prevention and Management." It is a quick and excellent resource for clinical staff in an inpatient setting.

Realizing that elder Arkansans are also at high risk for falls, our University of Arkansas for Medical Sciences, Donald W. Reynolds Center on Aging, with a grant from the Hartford Foundation, has implemented a fall prevention study in an outpatient setting. I am very pleased to be an expert consultant for the Hartford Center for Geriatric Nursing Excellence at Arkansas.

We based our program on recently published fall prevention guidelines in the American Geriatric Society Journal. The co-chair was the distinguished Dr. Laurence C. Rubenstein from UCLA and the VA GRECC. Supported by The Hartford, geriatric nurses in Arkansas have been instrumental in implementing these guidelines to test their effectiveness and to translate them into clinical and public health practice.

This is the tool kit that we have developed to engage patients and clinical staff to change customs and practices. It is the same principle as washing your hands. We all know that washing hands has been shown to prevent disease, and we know that not everyone does it all the time. So with fall prevention and management, we must encourage everyone to incorporate these principles all the time.

Another intervention, hip protectors to reduce injuries from falls, has been implemented at the Little Rock VA and other VA sites and private institutions. They have been shown to reduce fractures by 50 to 75 percent for the small price of $30 to $60 per pair.

So my message to you today is that we know a lot about the causes of falls and their management, and we have heard of some examples here today. The next step is to use our knowledge and expand on it and then translate it into practice. To do so will improve the quality of life for the ever growing population of older Arkansans, veterans, and Americans.

Them, once this is done, we will need to implement permanent funding sources to maintain these effective prevention programs.

Thank you. That concludes my statements.

Senator MIKULSKI. Excellent. Thank you very much.

[The prepared statement of Ms. Watson may be found in additional material.]

Senator MIKULSKI. Mr. Merles, welcome.

Mr. MERLES. Good afternoon, Madam Chairman and Senator Hutchinson. Thank you very much for this opportunity to be here and to share with you our concern for fall prevention among the elderly, and it is very reassuring to know that it is a high priority for you.

The South East Senior Housing Initiative is dedicated to helping seniors remain in their own homes and in their own communities. As we became aware of the issue of falls and the need to help seniors prevent falls, we joined together with a number of agencies in the community to look at the problem and to come up with an action plan.

We sat down with a number of partner agencies—the Baltimore Medical Systems, a series of community-based health clinics; with Banner Neighborhoods, a community development corporation; with Neighborhood Housing Services of Baltimore, and with the Baltimore City Commission on Aging, which is our Area Agency on Aging. We also brought in the Hopkins School of Public Health.

We devised an action plan, our Safe at Home Program, to demonstrate that falls can be prevented by providing home modifications, safety repairs, assistive devices, training by an occupational therapist, social work interventions, nutrition services, health education, and ongoing communications with physician, family, and client.

The Robert Wood Johnson Foundation agreed that this was a promising proposal and went a little bit out of their normal funding path to support this effort with a 4-year grant. We received matching funds from four local foundations.

We hope in the near future to have some of these efforts supported by the Maryland Medicaid Waiver Program, where we have run into quite a few stumbling blocks in that attempt.

Our work with the Hopkins School of Public Health is based on a contract with them to do an in-depth analysis of our data and to help measure whether and to what degree these interventions really are effective. One of the first steps in the process was the development of an intake and screening tool which, very much in line with a recent paper put out by the American Association for Retired People, helps to focus the effort on people who are most at risk for falls so the dollar benefit of the intervention is maximized.

Our data as it is collected over the next 3 years will be analyzed against baseline data previously researched by Dr. Linda Fried at the Johns Hopkins School of Public Health. It is a little premature to reach conclusions—we have been in operation for only about 18 months—but the trends are very positive. They seem to be moving in the directions we expected.

The Robert Wood Johnson Foundation challenged us as part of this effort to keep physicians involved in the process, to see if we could keep the doctors aware of the effect of the home environment on the potential for falls and the risks that they present to seniors.

Our target over the 4-year period of this project is to serve 550 low-income seniors, people over the age of 55, who seem to be at risk for falls. To date, 18 months into the program, we have about 260 clients, so we feel that the people who need the service certainly are out there.

We are frustrated daily by the numerous calls we get from people outside our geographic catchment area. Our program is limited by our funding to Southeast Baltimore, and we get calls from every quarter of the city and from the surrounding suburbs looking for the help that we provide.

There really is not anybody else in the city doing quite what we are doing, and the need is clearly out there. Baltimore's typical rowhouse, as Senator Mikulski indicated, can present specific challenges for senior adults. Typically, the bathroom is on the second or third floor; frequently, the kitchen in the basement. The steps are very steep, narrow, and sometimes twisting.

Most of our clients are widows or widowers living alone. They have very limited income. They have lived in the same house all of their married lives, some of them all of their lives, and many of them are second or third generations. So that efforts to make changes in the home environment meet very strong resistance. Even moving a piece of furniture that might be in the path of their walking traffic can sometimes be very difficult, or moving a throw rug.

Mortgages have long ago been paid off, so that very few of these clients carry homeowner's insurance. This leads to not making appropriate repairs, for example, to roof damage, which then leads to ceilings falling and to floors warping, creating a tripping obstacle.

Some of the interventions that we provide, the typical home modification interventions, include: Installing railings on interior and exterior stairs; grab-bars, handheld showers, improved lighting, taping down throw rugs; providing cordless phones so you do not have to run to answer the telephone; replacing broken steps; removing extension cords and adding outlets that are 18 inches above the floor; moving laundry facilities up from the basement; providing assistive devices, transfer devices; providing safe stepping stools and reaching devices; building wheelchair ramps; installing stairglides; repairing broken and warped flooring, and removing carpeting that may be too shaggy or too worn; and rearranging furniture.

Another vital piece of our program is the ongoing contact with the client. We re-contact every client approximately every 90 days to maintain a relationship. Often, suggestions that we have had for them at the beginning are not accepted, and 90 days later, as we develop the relationship, they are willing to attempt some of the things we want to do.

We are very grateful for your attention to this concern, and we hope that the Senate and Congress will follow this initiative and help provide the means for bringing this to national attention and dealing with the problem.

Thank you very much.

[The prepared statement of Mr. Merles may be found in additional material.]

Senator MIKULSKI. Thank you, Mr. Merles.

All of the testimony was just excellent and very much appreciated.

Ms. Watson, I want to ask you two questions. One, in your opening remarks, you talked about how you had a 50 percent reduction—did you say in admissions?

Ms. WATSON. In major injuries.

Senator MIKULSKI. Do you want to talk about what you did and how you did that? That is a stunning statistics, and the consequences on the VA medical budget are quite significantly.

Ms. WATSON. Certainly. Along with reduction in pain and suffering, we instituted a more formal assessment, as these two gentlemen have spoken about. On admission, our patients are assessed, and we determine whether or not they are at risk. Although I have some ideas that people should all be considered at risk—universal fall precautions are implemented at our hospital for all veterans—then, we have a moderate risk and a higher risk. We have improved and enhanced our method of communication about that risk to all shifts, and when a patient is transferred from unit to unit, they are reevaluated; if they are there for a period of time, they are periodically reevaluated. So the assessment was quite crucial, and we implemented the Janice Morse Falls Scale to do this.

Along with assessing patients, of course, we have ongoing education to staff regarding the kinds of strategies that should be implemented once someone is at risk. Based on whether or not someone is alert and oriented, you might simply make sure they have a bedside commode, make sure they have good slippers, that a light is on in the bathroom, make sure that that call light is always within easy reach—those kinds of things.

Then, for those who are more confused and disoriented, you might move them closer to the nurses' station. Using bed and chair alarms is another intervention that we have really pushed at our VA as well as in our long-term care area, implementing hip pads, using low beds to the floor with floor mats.

Senator MIKULSKI. That is really very interesting.

Also, on page 4 of your testimony, you use the term "hip protectors." I find that a fascinating term. Some of us think we have a little too much hip protection. [Laughter.] Could you tell me what a hip protector is?

Ms. WATSON. Well, I believe you might have an attachment to my testimony with a picture of this. Basically, it is an undergarment that has extra padding over the hips. This can be either a soft material type or a harder type of shell, based on which company produces it. They have been available for the last 15 years, but it has only been in the last 5 years that we have had a lot of research in this area, particularly in England and Sweden. A study came out in the New England Journal of Medicine in December of 2000 that indicated that this product was quite effective for those who would wear them.

They have a slim fit that can fit under your regular clothing. If you are a nursing home patient, they have larger sizes that have more room; and if you were incontinent, you would wear them over your incontinent brief.

Senator MIKULSKI. So it is a low-tech, high-impact technique for minimizing——

Ms. WATSON. That is right. If they are worn 100 percent of the time, day and night, they are very, very effective.

Senator MIKULSKI. That is very interesting.

I just want to say to the committee that I am going to have to go to another committee hearing, and with Senator Hutchinson's indulgence, I would like to ask Mr. Merles two questions and then turn it over to you for such time as you deem necessary.

First of all, thank you very much, Ms. Watson, and again, we have other questions, but in the interest of time, I will turn to Mr. Merles.

Mr. Merles, are you bankrolled only by the Robert Wood Johnson Foundation?

Mr. MERLES. At this point, the Robert Wood Johnson Foundation, the Franz-Merrick Foundation, the Knott Foundation, and the Ericsson Foundation, four local Baltimore foundations, match the funding from Robert Wood Johnson.

Senator MIKULSKI. I appreciate that.

Let us go to page 2, where you talk about how to improve those Baltimore rowhouses. That is exactly the neighborhood where I grew up, but it is where my mother and father aged in place. My father had Alzheimer's, and eventually, we had to turn to long-term solutions, and mother developed diabetic neuropathy, so we needed the stairlift and so on. We did those things, and they were expensive.

My question to you, because I think it is great—you list installing railings, chairlifts, a lot of practical things—are you actually—"you" meaning the program—actually paying for these things?

Mr. MERLES. Yes, we are—not the chairlifts. We have installed a few chairlifts because they have been donated to us. We frequently get recycled equipment as part of our community loan closet, and then, if we find a home where it fits, we can install it.

Senator MIKULSKI. Because those cost several thousand dollars.

Mr. MERLES. Yes. Our average expenditure per client, total average expenditure, is about $1,200.

Senator MIKULSKI. And that is usually for these modifications, lighting, and so on.

Mr. MERLES. Right—and shoes. We really put a big stress on safe, comfortable shoes.

Senator MIKULSKI. So again, though, $1,200, when you think about the admission—and do you work with private contractors?

Mr. MERLES. Yes, we do, although we do get some of our work done through labor which comes to us at no cost through the Living Classrooms Foundation which is part of a program for training young people in construction industry skills and actually does a lot of our installation work. That helps to cut down on the costs.

Senator MIKULSKI. If in fact—and I know about Living Classroom—Senator Hutchinson, you would like it. It is where, in the old days, they would have called them "dead-end kids," and this is usually a second chance, but instead of just lecturing them to be good, they are given role models and mentors and practical skills, particularly in area like carpentry and other work force shortage areas in the building trades. Then, they can move into apprenticeships, and their lives are changed.

I have talked to these kids, and when they are doing some of your kind of work, for the first time, Senator, they feel pride. They are actually, instead of destroying the community or breaking their grandmother's heart, repairing homes. So it is a double win.

Mr. MERLES. Senator, if I may relate one vignette, we had a wonderful experience working with the young people from Living Classrooms in a joint program with the Veterans Authority where we had a senior adult, a veteran who was a double amputee now con-

fined to the basement level of his home. We were able, with the labor provided by Living Classrooms and funding for materials from the VA, to put in an adapted bathroom, where there had been no bathroom on that level, with a roll-in shower so he could move in easily, and wit all the proper grab-bars for transferring to the toilet, and it was an extremely successful project—and it was not just the work itself. As you were alluding to, it was the excitement of these young people about working with a person who needed their help and seeing what a great job they were accomplishing. It was really a nice win-win situation.

Senator MIKULSKI. What would be the appropriate agency to go city-wide? If we looked at demonstration programs, should this be run through municipalities, nonprofit organizations, all of the above?

Mr. MERLES. I think some combination of nonprofits with the Baltimore City Commission on Aging would probably be a very viable approach. There are organizations in other parts of the city—I am thinking of Light Street Housing and High Neighborhoods in Northwest Baltimore and maybe HarBel in Northeast Baltimore who could all probably do something like this.

Senator MIKULSKI. So when the committee looks at this, your suggestion would be—because again, our dear colleague is interested in the rural issues—to work through the Area Agencies on Aging and let them see if they could either administer it or delegate it through a contract with a nonprofit.

Mr. MERLES. Contract to a nonprofit, yes.

Senator MIKULSKI. When they talk about the Commission on Aging, that is the Baltimore City Area Agency on Aging. Would you recommend that?

Mr. MERLES. Yes, I think that would be a very viable approach.

Senator MIKULSKI. Thank you. And again, I want to thank you for your very good work, both of you; Mr. Jackson for bringing this to our attention; and Ms. Struchen, who is quite a brave lady.

Ms. Watson, you can be assured that as somebody who bankrolls the VA, we are going to see how we can provide a little more behind the National Center for Patient Safety, and I will work with my colleague on that.

Thank you very much, Senator Hutchinson. I look forward to working with you on this.

Senator HUTCHINSON [presiding]. Thank you, Senator Mikulski. And I am on the authorizing committee, and we will look forward to working with you on the VA.

Senator MIKULSKI. Thank you. Let us see if we can do that this year, like soon.

Senator HUTCHINSON. Excellent. Very good. Already something great has come out of this hearing.

I want to thank all of our witnesses. Ms. Struchen, we are glad that you are with us. I think you are very fortunate, having had those three falls that you narrated to us, to be looking good and in good health and good condition. So we are glad for that.

According to the CDC, an individual who falls once is two to three times more likely to fall again, and that is the category you are in. So I want to make sure to get all those suggestions that have been made, those practical things that can be done to ensure

that we have you for a long time and that we do not have any more serious falls.

Ms. STRUCHEN. Thank you very much.

Senator HUTCHINSON. I want to ask Mr. Jackson kind of a philosophical question. What I find is that when I am sponsoring legislation dealing with elder falls as a conservative Republican, there is a little rolling of the eyes or a little snicker, implying what is Government doing in the area of elder falls.

I get posed that question, and I have an answer for it, but I want to hear what the National Safety Council has to say first. What do I tell my colleagues on the Republican side of the aisle why they should be supporting a very modest investment, really, in a program to reduce alder falls?

Mr. JACKSON. Senator, without identifying my political leanings, I have a pretty good answer for that. First of all, the business community looks for a return on investment. Clearly, there is a return on investment here to Medicare, Medicaid, and the VA by investing a relatively small amount of money now to save this large amount of money that is going to be outputted in the future if we do not reverse this trend in falls.

So it is a simple ROI.

Senator HUTCHINSON. Yes, it is. A long time ago, our Government and our people, the citizens of the United States, made a commitment that we were going to care about our senior citizens in the establishment of the Medicare program and a health insurance program for our seniors. We said as a people, as a society, and as a compassionate culture that we cannot ignore those who are most vulnerable and particularly those who have reached their golden years and may not have health insurance.

So when you take that into consideration, what we have proposed on elder falls really makes all the sense in the world, because Medicare will face and continues to face an ongoing financial crisis, and this is clearly not only compassionate, to help people and save lives, but it is also a very, very good investment of taxpayers' dollars if we can reduce death and injury from elder falls.

So that is my message to my colleagues, and I think we are going to find a lot of bipartisan support for what we are proposing,and I want to commend the National Safety Council, because what we must do here in Congress as well as across this Nation is to focus attention, heighten people's sensitivity to this issue and their awareness that this is a major problem in our country. You are doing a good job at that, as the National Safety Council has done on issues for many, many years.

As we think about raising awareness of falls and how devastating the resulting injuries can be, Ms. Watson—I might say that your testimony was outstanding. Chairman Mikulski leaned over to me and said, "Excellent witness," and I was very proud that you are from Arkansas—but you mentioned that seniors need to be encouraged to come forward regarding their fall history. Is it your experience that a typical senior is embarrassed to admit that he or she has fallen, and have you encountered cases where seniors who have fallen are even reluctant to tell their own families?

Ms. WATSON. Oh, yes, definitely. Of course, no one wants to admit—or, they might discount it because they thought they were

just clumsy. Some people may use the excuse that, "I am just getting older. Of course I would fall." Others might be afraid that their family members would curtail their activities.

One such case was my grandfather, who was my grandmother's caregiver. When he fell and broke some ribs and then developed pneumonia, it complicated his case, and my mother insisted that they be institutionalized, and they were admitted to the home in York, PA.

So there are many reasons why someone might not want to tell others they have fallen. If you fall even in the hospital, "The doctor might delay my discharge." So coming forward might be difficult.

However, as you mentioned, developing a relationship with your provider or someone such as your group is what the American Geriatric Society is recommending, that elders be asked on a periodic visit to their provider, "Have you had a fall in the last couple of months?" or in the last year, and perhaps get a dialogue going, and then perhaps do a simple noninvasive test in which they get up, walk across the room, turn around, and come back, and the provider can watch and see how they are doing.

Over a period of time, the person might trust their provider, that the provider is there to help them maintain their mobility, maintain their independence, if we just know what is really, truly going on.

Senator HUTCHINSON. Senator Mikulski asked you something about the hip protectors, and it kind of got my attention, too. Clearly, in your program in the VA, these are being used with great effect. You said they have been around for 15 years.

Ms. WATSON. Yes.

Senator HUTCHINSON. Is there any effort to have the use of hip protectors expanded, and is there any utilization that you are aware of on a formal basis outside of what you are doing in the VA?

Ms. WATSON. Certainly, the National Center for Patient Safety through the VA is doing everything they can to promote the use of hip protectors.

Senator HUTCHINSON. That is within the VA.

Ms. WATSON. Within the VA, yes. They are implementing a small study at our VA relatively soon in which we are going to ferret out the problems with hip protectors. Not everyone will wear them. There might be problems with laundry, comfort. There are various products out there that need to be tested and tried so that we can come up with an algorithm or a protocol that will be helpful to whatever institution wants to use the product.

Senator HUTCHINSON. And you said the investment is only $30 to $60 dollars?

Ms. WATSON. Yes, $30 to $60 per pair. Someone would need approximately two pair, one to wash and one to wear, as they say. They go through approximately 125 to 150 washings. And based on whatever model you choose, you can go out in public, perhaps; if you have a fear of falling, this might give someone a little bit more comfort and security that if anything happens, they will not break their hip.

Senator HUTCHINSON. Thank you.

In your testimony, you mentioned that approximately 14 percent of falls are accidental and attributable to environmental factors, while the majority of falls are due to physiological factors. And physiological factors would mean poor eyesight or imbalance, something of that nature.

Ms. WATSON. Yes, that is correct. If you have a sudden, acute illness, perhaps—an infection might make you weak, and you would fall; a chronic illness like diabetes with peripheral neuropathy, in which your feet are kind of numb, so your gait and balance may be affected; other chronic diseases like Parkinson's disease that cause gait and balance disorders. A simple lack of exercise and deconditioning over time can also predispose someone physiologically to a fall—as you mentioned, vision, hearing, poor nutrition can physiologically predispose you to weakness.

Senator HUTCHINSON. When you said that 14 percent of falls are attributable to environmental factors, what struck me immediately was that it does not seem like that many falls are attributable to environmental factors, 14 percent—but there is a lot of interrelationship between the physiological and the environmental factors, so that even if there is a physiological predisposition to being vulnerable to a fall, if you take the proper precautions and preventive measures in your environment, you can minimize or lessen the risk.

Ms. WATSON. That is correct. If you have a gait and balance problem, simply walking from one end of the house to the other might be more difficult for someone because of something in the environment. So that it can certainly be a simple accident, such as tripping on something that is wet, or it could be a combination of the fact that you have a gait and balance problem and you trip over a tiny bump in the rug.

Senator HUTCHINSON. And I cannot remember the percentage, but you mentioned what percentage occur in the home as opposed to outside the home. Do you recall?

Ms. WATSON. Sixty percent.

Senator HUTCHINSON. Sixty percent occur in the home?

Ms. WATSON. Yes, in the home.

Senator HUTCHINSON. Maybe I mentioned that.

Ms. WATSON. I think you did.

Senator HUTCHINSON. And with the 60 percent that occur in the home, are there statistics on where in the home the highest risk is, like in the bathroom?

Ms. WATSON. I think the bathroom and the bedroom areas are high-risk. Certainly, an environmental assessment, as you were mentioning, in great detail by a physical therapist or an occupational therapist who can certainly see the person as they move through their day-to-day activities, where they are having the most problems, then they could individualize the interventions there in the home.

Senator HUTCHINSON. Bobby, is there anything you want to say on that? You looked like you were ready to comment.

Mr. JACKSON. No. I was just affirming what she was saying about locations. Our data indicate that the bathroom and the bedroom are two vulnerable locations in the house.

Senator HUTCHINSON. Mr. Merles, you mentioned the great demand for the services you provide, but I take it you are really the only service provider doing what you are doing in the Baltimore area. Why do you suppose others have not gotten involved in this area?

Mr. MERLES. Because there is very little funding for it. The other community agencies that we have talked to have said they would love to be able to do it if they had funding to do it.

Senator HUTCHINSON. And that is what we are looking at. Hopefully, we can be of help on that.

I think I am about to exhaust the questions that I wanted to ask, but I want to give any of our witnesses today the opportunity to have a closing word or to make any particular statement for the record and for the committee.

Mr. JACKSON. If I may, Senator, just a couple of comments. There may be a question from time to time about competition, if you will, between a national campaign of education and so on and local experience. Clearly, we think that these two issues are compatible, working in a national education campaign, to give broad behavior modification, not unlike what we have gone through over the years with most recently child safety seats, for example. Fifteen years ago, we did not use them; now the use if very good. That is a behavior modification activity.

The local experience, though, is a practical experience where the rubber meets the road, where it can really get done. I think these two issues certainly have synergy.

HHS is to study, by the way, as part of this statute the impact of tax credit. We are talking about seniors not being able to afford this. Well, if there is a possibility for impacts of a tax credit for prevention interventions, that is what HHS is supposed to look into.

My final comment is that many cynics that I have talked to say that old folks are going to die anyway. Well, here is the case where they do not have to die—they do not have to die from accidental falls. Worse than that is surviving a fall and changing their lifestyle and the reduction in quality of life. That is the worst of the incidents that can happen, and we can stop that through this activity.

Senator HUTCHINSON. Well said.

Anybody else?

[No response.]

Senator HUTCHINSON. Then, let me thank our panel for your excellent testimony and presentations today and for laying the groundwork for what I hope will be a very productive action on the part of the U.S. Senate.

So thank you for your participation, and the hearing is adjourned.

[Additional material follows.]

ADDITIONAL MATERIAL

PREPARED STATEMENT OF LILIE MARIA STRUCHEN

I am a 91-year old woman, and I live at Friendship Terrace, a retirement community here in Washington, DC. I am happy there and am pleased that I am still very independent. I cook, clean my own apartment, and have a full calendar of activities. I have been going to a lunch program at a nearby church two days a week, but I am giving that up for awhile so I can devote more time to painting, and to join a book discussion group. Our retirement home has a wonderful library. I also appreciate the 24-hour security desk, the shuttle bus that takes us shopping and to medical appointments, the nurse who is here two days a week, and the services of the IONA Senior Services.

During the past few years, I have fallen both while out shopping and in my bathroom. I fell twice on the same street corner while crossing from the drugstore to the food store. I fell flat on my face, breaking my glasses and hurting my nose. Although it took me a little time to get my bearings, fortunately, I was not badly hurt. The falls may have been due to carelessness, but I was hurrying because there is not enough time between the green and red lights for me to get across the street. Now, even if the light is green, I wait and don't start crossing until the next time it turns green. Also, I no longer take the public bus, but rather wait for our shuttle bus.

When I fell in the bathroom, I think it was because of a little water on the tile floor that made it slippery. My body twisted and my left side hit the tub and then my right side hit the sink and counter. My right arm had a very bad bruise and deep cut. My left arm hit the toilet very hard, and, luckily for me, the seat was up and my fist went down to the bottom of the bowl. If the toilet seat had been down, I think I would have broken my wrist or arm on it. I fell to the floor and couldn't reach the "panic button." No one would hear me call with the door closed, so I had to struggle to get to my knees—which I hadn't done in a long time—and then finally stand up. I was badly shaken up by this fall, but I wasn't too badly hurt physically. The nurse where I live was able to take care of the cut on my arm. I'm thankful I didn't have to call 911, because another time when an ambulance took me to the hospital, it was very expensive.

I have discussed getting the type of emergency response system you wear around your neck, but I am not sure if I am ready to do that yet. One reason is cost. I understand it costs about $40 to set up a system and about $35 a month after that. This is money I could use to buy groceries—things I want that are not served at the evening meal which is included in my rent. Also, emergency response systems do not help when you are out in the community, only in your own home. I have thought it might be helpful for older people to always have cell phones with them. However, this would be an expense, and if you fall you might not be able to make a call.

Besides waiting for green lights and making sure bathroom floors are dry, my other suggestions for preventing falls are grab bars in bathrooms, railings in hallways, and making sure there is a little light in your room at nighttime in case you want to get up when it is dark. It is also important to have someone check on you. At Friendship Terrace, you need to let them know if you will not be at dinner. Otherwise, if you do not appear, it is reported to the office and someone calls to see if you are okay.

Even though I have had several falls, I have not been badly hurt. However, I have friends and acquaintances who have fallen and suffered injuries that required hospitalizations. Unfortunately, in many cases, people do not recover or must leave their homes and enter a nursing home.

Senators, I appreciate your work to help prevent falls among elderly people, and I thank you for inviting me to participate in today's hearing.

PREPARED STATEMENT OF BOBBY JACKSON

The National Safety Council (NSC) appreciates the opportunity to provide congressional testimony related to the Elder Fall Prevention Act of 2002 (S.1922). The National Safety Council is the nation's leading non-profit, non-governmental safety and health organization, comprised of 37,500 organizational members and millions of Americans that are employed by its members. Founded in 1913, and chartered by the U.S. Congress in 1953, the Council is the nation's leading safety and health advocate and has been instrumental in saving the lives of Americans in the workplace, on the highways and in their homes and communities.

Falls among our nation's valued elderly is a serious public safety and health problem. Two years ago, the National Safety Council issued its Safety Agenda for the Nation, which identified the seven most critical safety and health issues in America. Falls to the elderly was preeminent among those issues—along with drunk driving, teen driving, seat belt use, large truck safety, workplace safety leadership and pedestrian safety.

In 1999, the latest year that data is available from the CDC, over 10,000 seniors age of 65 or older died from fall-related injuries. Falls are the leading cause of injury death among older adults and the most common cause of non-fatal injuries and hospital admissions for trauma. Alarmingly, more than one-third of adults 65 years or older fall each year.

The most common of fall-related injuries are hip fractures, which are expected to exceed 500,000 by 2040. Of all fall-related fractures, hip fractures cause the greatest number of deaths and lead to the most severe health problems and reduced quality of life.

In fact, one in four seniors who sustains a hip fracture die within one year and three out of four seniors who survive will never regain their pre-fall quality of life.

The Elder Fall Prevention Act is not just altruistic legislation that has identified human benefits. It also has major economic implications. For example, CDC estimates that direct costs alone to Medicare and Medicaid will exceed $32 billion in 2020.

Senator Max Baucus, a co-sponsor of S.1922 recognizes these type of health care costs, as a serious problem. Senator Baucus strongly supports the fall prevention legislation from a health care cost savings perspective. Senator Baucus issued the following statement: "As Chairman of the Senate Finance Committee, which has jurisdiction over Medicare and Medicaid, senior health issues are one of my top priorities. I am committed to protecting and improving these programs to better serve seniors with crippling illnesses like cancer and heart disease. But I believe Congress must also address other health hazards that can be just as devastating as these horrible diseases. One of these hazards is falls by seniors."

Additionally, The Elder Fall Prevention Act will charge the Secretary of Health and Human Services to undertake a review of the effects of falls on the costs of the Medicare and Medicaid programs and the potential for reducing costs by expanding the services by these two programs. The review will include a review of the reimbursement policies of Medicare and Medicaid to determine if additional fall-related services should be covered or reimbursement guidelines should be modified.

As is the case with most public safety and health problems, funds spent on prevention are multiplied in savings in private and public sector health care costs. A small investment now will foster huge savings for our health care system later.

Falls to the elderly is a public safety and health problem that demands significantly increased focus on prevention. Therefore, NSC strongly supports S. 1922 and firmly believes that it will provide the necessary resources and direction to implement a national, coordinated strategy to address this serious problem through national education campaigns, demonstration projects and research.

Through our Charter, The National Safety Council is charged by you, the U.S. Congress, to "arouse the nation in injury and accident prevention". The Council is prepared to fulfill its Charter for older Americans in part through its involvement in this legislation. Through funding provided by this bill, the National Safety Council will implement a three-year nationwide public education campaign along with demonstration and research project to prevent fall-related injuries and death.

Over its 90-year history, the National Safety Council has led or played key roles in national education campaigns on a number public safety and health issues, including workplace safety, seat belts, air bags, and lead poisoning.

Through national education campaigns, including those led by the National Safety Council, Americans today are much more knowledgeable about the benefits for example of seat belts. Thousands of lives have been saved on our highways because of this knowledge and because of the simple change in behavior of wearing seat belts.

We are committed to raising the national consciousness and knowledge about fall prevention. We might compare where we are today in knowledge about fall prevention with where the nation was a generation ago regarding the use of seat belts. The Council firmly believes that falls can be prevented though educational awareness and behavioral changes.

Similarly, today many Americans do not know how simple changes- in lighting, floor coverings, handrail installation, vision correction, exercise and various aspects of home design can reduce falls. Many older Americans do not know how simple changes in how they walk up and down stairs and sidewalks can reduce the likelihood of falls.

Additionally, pre-and-post fall counseling of seniors and their families are proven, effective measures that have demonstrated a reduction in elder falls. This is just a small sampling of the knowledge that the NSC hopes to share with our nation through an educational campaign.

While these factors may seem like relatively simple matters in which public education is needed, there are many complex factors affecting Americans' fall risk. Providing public education about these risk factors and causes will require a comprehensive plan that recognizes that falls occur due to a variety of risk factors and causes with varying prevalence of each among different groups of people.

Falls may be an indicator of a serious health problem, may indicate progression of a chronic disease, or simply may be a marker for the onset of normal age-related changes in vision, gait and strength.

Among the most prevalent risk factors cited in existing research are environmental hazards, gait and balance impairment, sensory deficits such as vision impairment, medical illness, age-related frailty, vertigo, impaired ADL, muscle weakness, depression, effects of over medication and history of falls.

NSC has the capability of using its national network of state and local chapters, media sources, its extensive volunteer network, and website as effective outreach tools. Additionally, the NSC founded the National Alliance to Prevent Falls As We Age. We will apply our expertise on fall prevention to communicate with senior citizens, families, community groups, senior citizen groups, employers, health care providers and the business community about effective pre-fall and post-fall prevention methods and strategies.

A key component of the NSC outreach network will include the aforementioned National Alliance to Prevent Falls As We Age. The Alliance's mission is to prevent falls and fall related injuries to older adults through outreach and innovative interventions, including educating the public and key stakeholders on the impact and preventability of elderly falls and related injuries of those age 50 and older.

The Alliance will work to reduce falls and fall-related injuries in adults age 50, and over through collaborative activities of federal agencies and other health and professional organizations. Strategies will include innovative outreach and educational activities, including: providing information, resources, and training to individuals, families, medical practitioners, community organizations, the media and policy-makers on the economic impact and prevention of falls by adults age 50 and over. Information will include both intrinsic and extrinsic factors including, but not limited to: home environment modification, medication review, vision, physical activity and enhancement of balance and strength, risk assessment, behavior change, fall-prevention counseling and other emerging protective and risk factors and preventive measures that contribute to or mitigate the risks of falls as we age.

The objectives for the Alliance are as follows:

1. Identify and increase collaboration among organizations with an interest, knowledge, resources and expertise to potentially impact prevention of falls and fall injuries, including federal, non-profit, professional, and other organizations. Develop a mechanism to network and share information among Alliance members.

2. Establish criteria for selection and identification of science-based resources, strategies, materials and evaluated programs related to fall prevention. Make information available through a variety of print, internet, and media modalities.

3. Convene a symposium to develop a National Action Plan to prevent older adult falls (e.g., research, surveillance, communication, training, resources, etc.)

4. Conduct falls prevention strategies targeting older adult populations and their families and caregivers to promote fall prevention.

5. Identify and implement appropriate strategies from the National Action Plan.

6. Prevent almost 50,000 fall-related fatalities by the year 2008 and 75,000 by 2012.

7. Achieve a 10% reduction in fall-related hospital admissions by 2008 and a further 10% reduction by 2012 and preventing 13.2 million fall-related injuries over the next 12-years.

8. Increase research related to this critical issue.

Additionally, S. 1922 will provide much-needed funding in the form of grants to qualified organizations, such as the Southeast Senior Housing Initiative in Baltimore, Maryland.

These grants will enable organizing of state-level coalitions, comprised of state and local agencies, safety, health, senior citizen and other local, community-based organizations, to design and carry out local education campaigns, that focus on ways of reducing the risk of elder falls and preventing repeat falls.

These public education campaigns will be overseen and supported by the NSC through the management and oversight of the Department of Health and Human Services Administration on Aging. Partnering with a federal agency to conduct pub-

lic education campaigns is something the Council has done many times—including its partnership with the National Highway Traffic Safety Administration (NHTSA) on the seat belt campaign, which was referred to earlier in this testimony.

The second aspect of the National Safety Council's involvement in the Elder Fall Prevention Act after the public education campaign, is to oversee and support the demonstration and research projects that provide grants to qualified applicants to design and carry out both pre-fall and post-fall demonstration programs in both residential and institutional settings.

These programs are critical to expand the base of knowledge related to a number of issues. The knowledge to be obtained through demonstration and research includes: Determining the effectiveness of various prevention approaches with certain target groups; Evaluating fall risk screening and referral programs; Targeting, screening and counseling methods for high-risk potential fall victims; Effectively educating health care and social service providers; Measuring the effectiveness of different post-fall treatment and rehabilitation strategies; and Determining the effectiveness of fall prevention programs in residential, multifamily and institutional settings.

The last major component of the Bill charges HHS to conduct and support research including: Improve the identification of elders with a high risk of falls; improve data collection and analysis to identify fall risk and protective factors; Improve strategies that are proven to be effective in reducing subsequent falls; Expand proven interventions to prevent elder falls; Improve the diagnosis, treatment and rehabilitation of elderly fall victims; Assess the risk of falls occurring in various settings; and Evaluate the effectiveness of community programs to prevent assisted living and nursing home falls by elders.

The National Safety Council believes that a structured approach and program of demonstration and research projects is the right approach to obtaining this knowledge. In this initiative, the Council will work under the leadership of the Centers for Disease Control and Prevention. The Council and CDC already have a working relationship through their shared chairmanship of the National Alliance To Prevent Falls As We Age.

As noted previously, falls to the elderly is one of the seven most critical safety and health issues in America. The National Safety Council is committed to preventing the life changing impact of fall injuries and death. The NSC believes that a large percentage of falls can be prevented through effective measures.

The National Safety Council is committed to producing short-term results and long-term successes in preventing fall-related injuries and death, controlling healthcare costs and producing significant results in reducing the impact of this significant public safety and health problem.

The National Safety Council thanks Senator Mikulski for her demonstrated leadership in this initiative and for including the NSC in this very important hearing addressing elder falls. Likewise, the NSC recognizes Senator Tim Hutchinson for his dedicated commitment to preventing falls to the elderly through his sponsorship of the Elder Fall Prevention Act of 2002.

NSC looks forward to working with Congress as we begin to further address these issues.

PREPARED STATEMENT OF DAVID W. FLEMING, M.D.

INTRODUCTION

Madame Chairwoman and Members of the Subcommittee, the Centers for Disease Control and Prevention welcomes this opportunity to provide this statement for the record on the issue of falls among older Americans. CDC is working with our Federal and non-federal partners in addressing the serious consequences older Americans face as a result of falls; identifying opportunities to improve the health and safety of older Americans: and reducing the negative economic impact that falls produce in our rapidly aging nation.

THE NATURE OF THE PROBLEM

Falls represent a serious public health problem in the United States. One of every three older Americans-about 12 million seniors-fall each year.

Data show that falls are the leading cause of injury death among people 65 years and older. In 1999. more than 10,000 older adults died from fall-related injuries. This number will increase as the number of people over age 65 continues to grow.

Nonfatal falls are also significant. Falls are the most common cause of hospital admissions for traumatic injuries. In 2000 alone, 1.6 million seniors were seen in emergency departments for fall injuries. Every year, falls among older people cost

the nation more than $20.2 billion in direct medical costs. By 2020, the total annual cost of these injuries is expected to reach $32.4 billion. Annual Medicare costs for hip fractures is almost $3 billion. These economic costs are significant.

Of all fall-related injuries. hip fractures not only cause the greatest number of injury deaths. but then also lead to the most severe health problems and reduced quality of life. Women sustain 75-80% of all hip fractures and the rate increases sharply from age 65 to 85. One out of three women will have a hip fracture by age 90. In 1999, there were over 300,000 hospital admissions for hip fractures, 77% were women.

The impact of hip fractures is significant, both in terms of quality of life and economically. Only half of community-dwelling older adults who sustain a hip fracture can live independently one year later. This contributes to the fear of falling and loss of independence which are a great concern of older adults. In a recently published study, 80% of the older adults in the study said they would rather be dead than experience the loss of independence and quality of life from a bad hip fracture and admission to a nursing home.

WHAT WE KNOW ABOUT FALLS

Risk factors for falls include muscle weakness, balance and walking problems. taking four or more medications (and taking certain types of medications), vision problems, certain chronic diseases (such as Parkinson's Disease, arthritis, stroke), previous falls, and having multiple risk factors. In one study, the risk of falling increased from 10% to as high as 69% as the number of risk factors increased from one to four or more. This kind of information is the foundation for developing effective prevention strategies.

Research has demonstrated a number of ways to prevent falls and the negative consequences of the resulting injuries:

Multi-component programs: Several studies have shown that programs that involve multiple components—usually exercise, medication review. vision correction and environmental changes in the home—are effective in reducing falls and fall injuries in people living in the community.

Review and reduction or modification of medications and vision correction: Multiple medications and certain types of drugs (such as anti-depressants) are a significant risk factor. However, additional research is needed to more fully understand the role of all medication and falls, and to develop clinical guidelines related to fall prevention for those at high risk for falls.

The form of exercise called Tai Chi: In some populations, when used as a sole intervention (as opposed to being part of a multifaceted intervention program). Tai Chi appears to reduce fall risk. In addition to improving balance, strength, and coordination, it also improves the sense of well-being and reduces the fear of falling.

Home modification: Sixty percent of older adults fall in their own home. So it makes sense to make the home safer, in particular an older adults ability to enter and exit the home, and to move around safely within the home. Installing stair railings, ramps, and grab bars (such as in the bathroom) are simple but effective modifications. These are most successful when combined with other interventions (such as exercise and medication review).

CDC ACTIVITIES TO PREVENT FALLS

CDC is committed to preventing older adult falls and ensuring healthy aging. and is already investing in a comprehensive approach to tackling this public-health issue. This approach includes:

UNDERSTANDING THE PROBLEM OF FALLS AMONG OLDER ADULTS THROUGH DATA COLLECTION AND ANALYSES

CDC collects data on the number of people who die, are hospitalized or visit emergency departments from falls. National and state-level data about deaths and emergency department visits are available to researchers and the public through CDC's interactive, web-based system called WISQARS (Web-based Injury Statistics Query and Reporting System) at www.cdc.gov/ncipc wisqars. People can use WISQARS to create reports and maps that help them understand the problem in their communities.

DEVELOPING AND TESTING INTERVENTIONS TO REDUCE FALLS AND THEIR CONSEQUENCES

CDC has funded studies to evaluate risk factors for falls and research to explore interventions to prevent falls.

Nationwide, half of all nursing home residents—roughly 750,000—fall at least once a year. The high rate of falls in nursing homes is generally attributed to the frailness of their residents. Research funded by CDC at Vanderbilt University is testing a fall prevention program in nursing homes. The Tennessee Fall Prevention Program teaches staff how to reduce obstacles and other hazards in residents' daily environment and monitor medication use. Originally piloted in seven pairs of nursing homes. the researchers found that residents were 20% less likely to fall after the program was implemented.

CDC is funding the California State Health Department to implement and evaluate a multi-faceted older adult community fall prevention program. Seniors are counseled about their risk for falls and steps to take to prevent falls, including enrollment in an exercise program, getting their medications reviewed, home modifications, and screening and referral for treatment of osteoporosis.

CDC research contributed to the development of hip pads, which reduce the force on the hip when an older person falls. Hip pads developed from this and other research have been shown in studies to reduce hip fractures.

CDC is the major funder of a large multi-site study of the costs and benefits of trauma systems. The purpose of this study is to evaluate the additional benefits of trauma systems over routine emergency department care. It includes a focus on older adults, particularly the costs of treatment of those who fall.

New research funds are available in FY02 for a 3-year study on fall prevention for community-dwelling older adults. The study will not only evaluate the effectiveness of the intervention strategies, but also identify how to facilitate effective collaborations among the community services, delivery systems, public health and health care providers.

SHARING INFORMATION ON PROVEN STRATEGIES

Information on falls and other injuries is available from the CDC-funded National Resource Center on Aging and Injury. based in San Diego and established by the San Diego State University Center on Aging, in conjunction with the American Society on Aging. The resource center has an interactive Website (www.olderadultinjury.org) that includes links to newspaper and journal articles, and other websites. The center also hosts online seminars on falls prevention. safety for older drivers, and related issues. Since it began in 1999. the resource center has reached more than 2 million older adults. caregivers, health care practitioners, and policymakers.

In an effort to spread the word about the risk of falls and to promote physical activity among older adults, CDC has internet resources available for the public and practitioners. For example, CDC developed the National Blueprint on Physical Activity Among Adults Age 50 and Older to promote physical activity among older adults.

CDC also compiled the Tool Kit to Prevent Senior Falls, a collection of research findings and educational and assessment materials for use by professional service providers. The tool kit, available in English and Spanish, has been distributed to more than 6,000 organizations, such as local health departments, Area Agencies on Aging, non-profit organizations, health care agencies, etc.

CDC is also funding the National Safety Council to conduct focus groups to assess the effectiveness with older adults of educations tools and strategies related to safety and health.

WHAT IS NEEDED NOW?

Use proven interventions—We have interventions that work. but need to learn how best to provide them to older adults who are at risk for falls. The multi-faceted programs that combine exercise. medication review. vision correction and environmental changes in the home are shown to have an impact in trials, but we need to learn how best to provide these on a broad scale. We need to work with health care providers to ensure that people at highest risk are identified and receive interventions. and also evaluate how best to deliver falls prevention services to older adults.

Evaluate promising interventions—Further work is needed to evaluate different exercise programs and to learn how to increase the use of hip pads among frail older adults. Health status varies greatly among older adults, as does the risk of falling. Research is needed to identify which interventions work best in different subgroups of older adults. Research on the cost-effectiveness of different strategies for caring for an older person with a fracture, including whether or not the availability of care at a designated trauma center improves outcomes, could be helpful to decision-makers.

Develop and test new interventions—New interventions are needed to decrease the risk of falling and decrease the risk of injury when older people fall. These interventions could include those that require behavior change, but also those that result from changes in the environment. Better understanding of the biomechanics—that is, what happens to the human body during a fall—may lead to new environmental interventions to decrease fall and injury risk, such as improved flooring. Better understanding of how older people interact with their environment may also provide new avenues for prevention.

CONCLUSION

Because of major strides in medicine and public health, we Americans are continuing to live longer-and healthier lives. As a result, injuries among older Americans now ranks with heart disease and stroke as a major contributor to death and disability among this population.

Fortunately, we have made great strides in learning how to reduce the chances of falling and to mitigate the impact of a fall that occurs. We know, for example, there are many steps people can take themselves to prevent falls. Older adults can reduce their risk by doing certain kinds of exercise. They can make their living spaces safer by removing tripping hazards, using nonslip mats in the tub and shower, improving lighting in the house and installing grab bars and stair rails. They can have their doctor review their medications for side effects and interactions and have their eyes examined each year.

Still, there is a compelling need to identify and eliminate barriers to implementing proven interventions and new interventions need to be developed which are appropriate to the many different subgroups of older adults. Those that work with older Americans in the community, in nursing homes, and where elders receive counseling services need to have knowledge of, and access to, the best information on programs and interventions. As our society ages, the burden of falls in older adults will increase. We as a nation must act now to prevent falls and fall injuries among older adults.

PREPARED STATEMENT OF MARY E. WATSON

Mr. Chairman and members of the Committee, my name is Mary Watson and I am a Falls Clinical Specialist for the Central Arkansas Veterans Healthcare System. I am also a consultant for the John A. Hartford Center for Geriatric Nursing Excellence at Arkansas. My thirty-four years of nursing and 14 years with VA has primarily focused on the geriatric population.

I am honored to be here today at the request of Senator Tim Hutchinson to speak about the issue of elder falls and how this issue affects Arkansans, veterans, and our aging population in general.

Arkansas ranks 9th in the percentage of elders in America with 14 percent of the population or 378,598 over the age of 65 (U.S. Census Bureau, 2000). We know that each year one out of 3 of our elders over 65 years of age fall at home. The average number of falls in hospital is 1.5 falls per patient per year with the number of falls increase in nursing homes to 2 falls per patient per year. The number one and most serious consequence of a fall is a hip fracture. It is expected that 3-6 percent of all falls results in a hip fracture. For Arkansans that would mean a minimum of 126,000 falls a year with a possible 378 to 756 hip fractures. Twenty-five percent of those elders with hip fractures die within 6-12 months. That would mean 94-189 Arkansans would die. Another 25 percent go on to be institutionalized or experience a decrease in functional abilities. The direct cost of fall-related medical expenses in 1994 per the CDC (Fact sheet) is $20 billion nationally a year and climbing. The amount of pain and suffering from these injuries cannot be estimated.

We at VA. are acutely aware of this very serious patient safety Issue and have made the reduction of elder falls, death from falls and injuries a top priority. I have personally been involved in the development and management of a comprehensive prevention program at our Litile Rock facility. My role, as a Falls Clinical Specialist, is unique in the VA system. As an Advanced Practice Nurse, I see inpatients on consult who are identified to be at high risk, those with repeat falls and major injuries and I can thereby, assist staff with implementation of patient specific interventions. In one fiscal year, we reduced our inpatient major injuries by 50 percent. The Central Arkansas Veterans Healthcare System and I have been supported in our efforts to reduce the pain and suffering experienced when an elder veteran falls through the work of VHA's National Center for Patient Safety (NCPS) led by Dr. James Bagian, and VHA's Veteran's Integrated Service Network (VISN) 1 and 8's Patient Safety Centers of Inquiry, which report to Dr. Bagian. NCPS coordinates the work of the four VA Patient Safety Centers of Inquiry to mobilize experts and to apply

knowledge in an effective way. Audrey Nelson and Pat Quigley's work at the VISN 8 Patient Safety Center of Inquiry in the area of fall prevention through clinical investigation with 11 other VAs extends knowledge and disseminates findings throughout VA and the private sector. They, and the University of South Florida, have hosted three excellent Evidence-based Falls Conferences. Outstanding researchers in fall prevention like Rein Tideiksaar, PhD., from the United States and Janice Morse, PH.D, RN, from Canada have presented at this annual conference held in Clearwater Beach, FL. The next conference will be in April 30-May 2, 2003.

Falls Collaborative Project. Peter Mills, Pat Quigley, and I participated with nine additional expert faculty members to assist thirty-two other VAMCs, four State Veterans Homes and one private facility to improve upon their Fall Prevention Programs. Using the Plan, Do, Study, Act or PDSA theory, small cycles of change are used to implement complex programs. The results were a 79 percent reduction in major injuries over a seven-month period. It is obvious that the effects of this program were enormous.

The VHA National Center for Patient Safety (NCPS) is deeply involved in the reduction of falls and prevention of injuries. Our Falls Collaborative Project found that NCPS' recent publication entitled "Fall Prevention and Management" is an excellent aid to guide the practice of clinical staff, in an inpatient setting. This handy laminated pocket "FLIP BOOK" was distributed to all 163 VAMCs by NCPS and developed by the Patient Personal Freedoms and Security Taskgroup, chaired by Dr. James Bagian; Director of NCPS.

Approximately 14 percent of falls are accidental and due to (extrinsic) environmental factors, the majority of falls are due to (intrinsic) internal physiological factors (Morse, 1997). A panel of experts from the American Geriatric Society, the British Geriatric Society and the American Academy of Orthopedic Surgeons reviewed an exhausting number of research articles and then published evidence-based fall prevention guidelines (JAGS, May 2001). The co-chair was Dr. Laurence Z. Rubenstein, of the Sepulveda, Cal., VA Geriatric Research, Education, Clinical Center (GRECC). The guideline recommends that all Americans over the age of 65 be asked about falls during a periodic primary care visit. If there is a history of falls in the past year, a simple non-invasive screening test is done and, if positive, a more in-depth evaluation is done. We know that a fall is a sign or symptom of an underlying problem (Brummell-Smith, 1989). Research findings, like that of Dr. Mary Tinnetti from Duke and Dr. Kevin Means of our Central Arkansas Veterans Healthcare System (CAVHS) and the University of Arkansas for Medical Sciences (UAMS), have found that the causes of falls as well as the interventions can be singular or multi-factorial. The physical causes may consist of one or more of the following: an acute illness, an exacerbation of chronic illness, lack of exercise, gait and balance disorders, medications, diet, and sensory deficits. Combining physical health problems with environmental hazards will most assuredly cause a fall. Assessment and development of an individualized treatment plan is necessary and may require only a singular or a multifaceted approach.

Realizing that elder Arkansans are at high risk for falls. our University of Arkansas for Medical Sciences, Donald W. Reynolds Center on Aging, with a grant from the John A. Hartford Foundation. have implemented these guidelines in an outpatient setting. The Donald W. Reynolds Center on Aging in Little Rock is one of five Hartford Centers for Geriatric Nursing Excellence In the nation. Geriatric nurses in Arkansas have been instrumental in implementing these guidelines to test their effectiveness. Not my will all elder Arkansans be screened during periodic visits but also staff will he supposed in their efforts to implement this screening. Marisue Cody Ph.D. Principal Investigator for this Hartford Grant and a VA/UAMS Nurse Researcher has said that we already know a lot about the causes of falls and prevention from our research findings but translating these findings into clinical and public health practice is another matter. That is what the Donald W. Reynolds Center on Aging and the John A. Hartford Foundation is attempting to do in Arkansas. Not only must patients be encouraged to come forward regarding their falls history, they must become engaged in implementing fall prevention strategies by making changes in their life styles, and so must Clinical staff. Clinical staff must integrate these new screening principals into their usual routine/practice. This integration is being accomplished through staff education, streamlining the screening process, use of computer templates to make the "paperwork easier", and feedback regarding patient response to interventions initiated. Monitoring patient outcomes will help to determine the effectiveness of this program. I believe you already have examples of useful educational documents found in this tool kit. Another project for late fall 2002 will be developing a multifaceted educational program on reducing falls and injuries for Nursing Assistants working in Arkansas Community Nursing Homes.

Since not all falls can be prevented, another innovation to reduce injuries from falls has been implemented at CAVHS and at other VA medical centers. Hip protectors have been shown to reduce fractures with an estimated 50 percent to 75 percent reduction in hip fractures for the small price of $30-60 dollars per pair. For our veterans nation-wide, it is estimated that of our 44,000 nursing home patients, approximately 20,000 will experience a fall every year; of these anywhere from 466 to 1337 will have a fracture incurring expenses of $8.9 to $40 million. The NCPS is currently initiating an effort that will support expanded hip pad use within the VA. This effort will involve gathering, synthesizing, and then disseminating practical tips on effectively implementing a falls program that incorporates hip pads.

Hip protectors have been available on an inpatient basis at CAVHS since October of 2001. We are now preparing a letter or intent seeking funding through a joint VA and Agency for Healthcare Research and Quality project to translate research into practice by initiating hip protectors in CAVHS outpatient settings. While hip protectors have been found to be effective, patient acceptance and compliance, as well as other issues involving comfort and fit, need to be further addressed.

As you can tell by the testimony today, the basic guidelines for screening, management and treatment to reduce elder falls and injuries are known but there is still work to do. Taking this knowledge, expanding upon it and translating it into practice is the next step to improve the quality of life for the ever growing population of elderly Arkansans, veterans and Americans. Once this is done we will need to implement and maintain these effective fall and fall-related injury prevention programs.

This concludes my statement. I will be happy to respond to the Committee's questions.

PREPARED STATEMENT OF PETER MERLES

In light of the significant cost of providing health care to the elderly in the United States, it is easy and appropriate to apply the old adage, "An ounce of prevention is worth a pound of cure." Studies by numerous researchers have documented the costs to our society for providing medical care to our seniors who have been injured in falls. Because the South East Senior Housing Initiative is dedicated to helping older Americans remain in their own homes and in their communities, we looked at the data and concluded that by preventing accidental falls we could improve quality of life of these citizens, keep the as vital, stabilizing members of our community and reduce the expense to our health care system associated with falls.

We brought together many of the other parties in our community who were concerned and developed a program to demonstrate that falls can be prevented. Our partners include Baltimore Medical System, a network of community based medical clinics serving the low income elderly in Southeast and East Baltimore, Banner Neighborhood Community Development Corporation, Neighborhood Housing Services of Baltimore, the Baltimore City Commission on Aging and Retirement Education (our Area Agency on Aging) and the Johns Hopkins School of Public Health.

Our SAFE AT HOME program has set out to demonstrate that falls can be prevented by providing home modification, safety repairs, assistive devices, training by an occupational therapist, social work intervention, nutrition services, health education and ongoing communication with the physician and family. The Robert Wood Johnson Foundation agreed that this was a promising proposal, and funded a four-year demonstration program, along four local foundations. We just received a commitment from the Weinberg foundation to fund two additional years if we can locate the rest of the funding needed. The Maryland Medicaid Waiver can pay for some of the services we provide for qualified clients.

We have contracted with the Johns Hopkins School of Public Health to provide an indepth analysis of the effectiveness of our program, to measure objectively whether we have indeed reduced the incidence of falls. emergency room visits, hospital stays and nursing home admissions. Our data will be compared to base-line research by Dr. Linda Freed and others. Although we are just a year and one half into this four-year project, and it is premature to reach conclusions, the trends in our data appear to be heading in the direction we expect. We are very happy that this effort has met with a great response from the community. The Robert Wood Johnson Foundation challenged us to get primary care providers involved. We are even meeting with some success there. Our target is to have served 750 clients over the age of 55 residing in Southeast Baltimore who were at risk for falls. Eighteen months into the program we have had over 250 referrals. We are frustrated daily, however, as we receive calls from all quarters of Baltimore City and from areas outside the city from seniors, doctors, family caregivers, physical therapists, social workers and clergy who are seeking the services we provide. Our current funding

limits us to only one quarter of the City. There isn't anyone else doing what we are doing in Baltimore, or anywhere else. We know about the need out there by the number of calls we receive every day, from within our geographic area out of our boundaries.

Baltimore's typical row house is very senior unfriendly. There is one bathroom, upstairs, and often the kitchen is in the basement. Stairwells are steep, narrow and sometimes winding. Most of our clients are elderly widows or widowers living alone. Typically they live on just Social Security income or a small pension. They have lived in the same house all of their married lives, some for their entire life, being second or even third veneration in the home. Mortgages have long ago been paid off, so homeowners insurance is not maintained. This can prevent seniors from doing costly repairs such as to roof damage, leading to deterioration of interior ceilings and floors.

Some of the ways we help prevent falls:

Installing railings on interior and exterior stairs.

Installing grab-bars, raised toilet seats, shower benches, anti-skid decals and hand held showers in bathrooms.

Improving lighting on stairs and in task areas. Taping down throw rugs.

Providing cordless telephones and walkers1bags with pockets to accommodate the cordless phone.

Replacing broken steps.

Removing extension cords by adding or repairing electric outlets, installing new outlets 18" above floor level.

Moving laundry facilities from basement to kitchen

Providing podiatry service in-home and custom-made safe shoes. Instruction and technical devices to improve medication compliance. Providing safe stepping stools and reaching devices.

Teaching proper transferring from wheel chairs; providing transfer devices. Build wheel chair ramps.

Installing stair-glides and wheelchair lifts when available.

Repairing broken or warped flooring.

Removing worn and torn carpeting.

Rearranging furniture for clear lines of movement.

An important element in our program is our ongoing relationship with each client. Within a week of receiving a referral, the Baltimore City Commission on Aging and Retirement Education does an in-depth intake assessment of each client and connects them to many services that are appropriate to their needs (nutrition, pharmacy assistance, transportation, socialization, etc.) Then our case manager and occupational therapist visit the client at home and do an in-depth environmental assessment. A service plan is devised and shared with the clients, their caregivers, and their physician. Upon the clients approval some or all of the interventions and modifications are provided. Our occupational therapist instructs in proper use of assistive devices, transfer methods and safety techniques.

We re-contact our clients, and revisit if needed, after 90 days to assess their use of the devises, and to learn whether their condition or needs have changed. Often a client will accept a suggestion that was originally rejected, as they build trust in our services, or recognize how helpful these modifications and devices can be. Physicians are alerted to any significant change we observe in a client, and are kept informed of the support and services we have provided. The doctors are supplied with a few questions that we request they ask each client at their next appointment. This procedure is repeated about every 90 days.

We believe this model of in-home services, physical modification, safety repairs and ongoing contact will demonstrate a significant effectiveness in reducing falls and the costs to our society associated with them

THE RESEARCH: VALUE OF FALL FOR SENIORS LIVING IN THE COMMUNITY

Falls are common among the elderly and contribute to excess mortality, ex. hip fractures are a determinate of institutionalization and death. A study in London targeted patients who sought care at emergency departments following a fall. The intervention group received a detailed medical and occupational therapy assessment with referral to relevant services; those assigned to the control group received usual care. One year following the intervention, falls had been substantially reduced in the intervention group and rates of fracture were decreased by 50%.—Close J et al. Prevention of Falls in the Elderly Trial (PROFET). Lancet 353: 93-7, 1999.

The average direct cost per patient during the first year following hip fracture is $40,000. A 1997 Swedish study concluded that the yearly potential cost savings per patient from preventing hip fractures is $22,000.—Zethraeus N et al. The Cost of

a Hip Fracture: Estimates for 1,709 Patients in Sweden. Acta Othopedica Scandanavia 68 (January): 13-7, 1997.

In 1997 researchers reported that hip fractures are a burden to the individual and the community since only 50% of patients regain the mobility and independence they enjoyed 12 months before the fracture occurred. The cost per hip fracture avoided is $48,000 if a 62 year-old woman with osteoporosis receives preventive treatment. The number of hip fractures worldwide is projected to increase from 1.7 million in 1990 to 6.3 million in 2050 because of the aging of the population. The total cost of hip fractures in 2050 will be $131.5 billion.—Jonnell O. The Socioeconomic Burden of Fractures: Today and in the 21st Century. American Journal of Medicine 103 (August): 20S-25S. 1997.

A 1998 study in New Haven, Conn. found that the homes of older people with physical deficits, i.e. difficulty sitting on and raising from a toilet seat or trouble walking, were rife with environmental hazards. In comparison to older people without disabilities, hazards that contribute to trips and falls were more common in the homes of older people with disabilities. The researchers conclude, "interventions designed to enhance the everyday function of frail older people need to focus on the environment as well as the individual."—Gill TM et al. Mismatches Between the Home Environment and Physical Capabilities Among Community-Living Older Persons. Journal of the American Geriatric Society 47 (January): 88-92, 1999.

A study in the May-June 1999 issue of the Archives of Family Medicine found that frail seniors who received intensive service and home adaptations were more independent and experienced less pain than frail seniors who received typical services, i.e. home nursing, Meals on Wheels, or help with personal care. More money was initially spent to modify the home environment and to introduce assistive devices. However, after 18 months, seniors receiving intensive at-home services demonstrated dramatic medical savings—mean costs for seniors receiving intensive services were $5,630 in contrast to a mean cost of $21,847 for seniors receiving traditional services. Those provided with assistance accounted for only $98 for inhome nursing and care manager visits, compared to $855 for the control group.—Mann WC et al. Effectiveness of Assistive Technology and Environmental Interventions in Maintaining Independence and Reducing Home Care Costs for Frail Elderly. Archives of Family Medicine 8 (May-June): 210-7, 1999.

In San Francisco, CA, a study of 233 seniors found that providing minor home modifications reduced the rates of falls, scalds and burns by 60% in the intervention group. Interventions required 10 person hours of unskilled labor and on average $93 worth of materials and included safety assessments and modifications such as removing clutter, installing handrails, grab bars or nonskid strips, securing rugs and electrical cords.—Plautx B et al. Modifying the Environment: A Community-based Injury Reduction Program for Elderly Residents. American Journal of Preventive Medicine 12: 33-8, 1996.

A program of in-home comprehensive geriatric assessments delays the development of disability and reduces permanent nursing home stays among elderly people living at home. A 1995 study demonstrated that annual in-home assessments provided with support services delayed seniors need for assistance in activities of daily living by 55%.—Stuck AE et al. A Trial of Annual In-home Comprehensive Geriatric Assessments for Elderly People Living in the Community. New England Journal of Medicine 333 (November): 1184-9, 1995

A targeted program providing a combination of medication adjustment, behavioral recommendations. and exercises decreased an individual's total mean health-care costs by $2,000. The series of home assessment by a social worker cost an average of $925 and included environmental modifications, Falls were reduced by 35%.—Rizzo JA et al. The Cost-Effectiveness of a Multi-factorial Targeted Prevention Program for Falls Among Community Elderly Persons. Medical Care 34 (September): 954-69, 1996.

[Whereupon, at 3:05 p.m., the subcommittee was adjourned.]

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